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| BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075 | | | EXAMINER CHEN, CAI Y | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/597,574 | Applicant(s) HILDEBRAND ET AL. | |
| | Examiner CAI CHEN | Art Unit 2425 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-5, 7-12 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-5, 7-12, and 29-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 3-15, and 29-34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3-5, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao (US 6,886,178 B1)

Regarding claim 3, Dureau discloses a method of transcoding dissimilar payloads the method comprising:

demultiplexing (para. 39, demultiplexed), at a device, a the first transport stream to recover first and second payloads that were each carried in the first transport stream prior to demultiplexing (para. 34-35, and 39, service provider to transport the content data contains HTML data, MPEG 1 data, MPEG 2 data, and MPEG 4 data are being demultiplexed at the set top box receiver, first payload refers to MPEG 2, second payload refers to MPEG 4 data);

transcoding the second payload to a protocol associated with the first payload (Fig. 4-6, abstract, para. 32-33, para. 35-38, para. 43-44, para. 47, the

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MPEG 4 data payload is transcoded into MPEG 2 data format for compatibility and where MPEG 2 refers as first payload, and MPEG 4 is second payload)

Dureau does not explicitly disclose determining whether a protocol associated with the second payload is dissimilar from a protocol associated with the first payload;

transcoding the second payload to the protocol associated with the first payload if the protocol associated with the second payload is determined to be dissimilar from the protocol associated with the first payload; and

multiplexing the first payload and the transcoded second payload to a second transport stream.

Mao teaches determining whether a protocol associated with the second payload is dissimilar from a protocol associated with the first payload (Fig. 1, the protocol for first payload (el. 13, MPEG 2, digital signal) is dissimilar than the second payload (el. 11, analog signal, col. 6, lines 14-36));

transcoding the second payload to the protocol associated with the first payload if the protocol associated with the second payload is determined to be dissimilar from the protocol associated with the first payload (col. 6, lines 14-36, the analog signal are transcoded into MPEG 2 signal); and

multiplexing the first payload and the transcoded second payload to a second transport stream (col. 6, lines 14-36, el. 14 the MPEG multiplexer is used to multiplex el. 11 and el. 13 signal)).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau to include disclose determining whether a protocol associated

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with the second payload is dissimilar from a protocol associated with the first payload; transcoding the second payload to the protocol associated with the first payload if the protocol associated with the second payload is determined to be dissimilar from the protocol associated with the first payload; and multiplexing the first payload and the transcoded second payload to a second transport stream, as taught by Mao, in order to deliver the desire payload to user's home equipments so the data payload is compatible to the home equipments and therefore displaying to the user

Regarding claim 4, Dureau in view of Mao discloses wherein the protocol associated with the first payload is older than the protocol associated with the second payload and the second payload is transcoded to the older protocols (Dureau, para.35, the transcoder is used to transcode the MPEG2 (older) to MPEG 4).

Regarding claim 5, Dureau in view of Mao discloses wherein the protocol associated with the first payload is less compressive than the protocol associated with the second payload, and the second payload is transcoded to the less compressive protocols (Dureau, para.35, the transcoder is used to transcode the MPEG 4 to MPEG 2).

Regarding claims 29 and 32, the instant claims are met by the rejection with respect to claim 1.

3. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2003/0135860 A1).

Regarding claim 7, Dureau in view of Mao discloses all limitation of claim 3.

Dureau in view of Mao does not explicitly disclose decrypting conditional access (CA) encryption of the first transport stream prior to demultiplexing.

Candelore teaches disclose decrypting conditional access (CA) encryption of the first transport stream prior to demultiplexing (Fig. 2, 5, and 8, el. 272-el. 288, para. 40-41, para. 60-64, para. 84-85, para. 94).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao set top box to include decrypting conditional access (CA) encryption of the first transport stream prior to demultiplexing, as taught by Candelore, in order to decrypt the TV signal so only the person is authorized can access the TV content (para. 40-41).

Regarding claim 8, Dureau in view of Mao further in view of Candelore discloses decrypting the CA encryption of the first transport stream in a settop box (STB) (Candelore, Fig. 2, 5, and 8, el. 272-el. 288, para. 40-41, para. 60-64, para. 84-85, para. 94).

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4. Claims 30 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2005/0175178 A1, hereinafter refers as Candelore I) and further in view of Kost (US 2002/01546941 A1).

Regarding claim 30, Dureau in view of Mao discloses all limitation of claim 29.

Dureau in view of Mao does not explicitly disclose prior to demultiplexing, decoding the first transport stream to remove copy protection,

After multiplexing, decoding the second transport stream to be copy protected,

Candelore I teaches prior to demultiplexing, decoding the first transport stream to remove copy protection (Fig. 1, el. 29, the transport stream is decrypted at el. 29 prior to demultiplexing),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao set top box to include prior to demultiplexing, decoding the first transport stream to remove copy protection, as taught as taught by Candelore I, in order to ensure that the copy protected content is only accessed by the authorized persons (para. 40-41).

Dureau in view of Mao and further in view of Candelore I does not explicitly disclose After multiplexing, decoding the second transport stream to be copy protected,

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Kost teaches after multiplexing, decoding the second transport stream to be copy protected (para. 46),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore I set top box to include after multiplexing, decoding the second transport stream to be copy protected in order to ensure copy protected content is only accessed by authorized users.

Regarding claim 33, the instant claim is analyzed with respect to claim 30.

Regarding claim 34, Dureau in view of Mao and further in view of Candelore I and further in view of Kost discloses a second copy protection encoder configured to encode the first transport stream to be copy protected and transmit it to the first copy protection decoder (Candelore I, Fig. 2, el. 28, CP Encrypter is to encode),

a second copy protection decoder configured to decode the second transport stream received from the second first copy protection encoder, so as to no longer be copy protected (Candelore I, Fig. 2, el. 29, CP decryption to decode); and

a second demultiplexor configured to demultiplex the second transport stream received from the second copy protection decoder, to separate the first payloads from the second payloads (Candelore I, Fig. 2, el. 30, the demultiplexer to separate two payload one going to el. 24, and other one goes to el. 31).

5. Claim 9, 35-36, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2005/0175178 A1, hereinafter refers as Candelore I).

Regarding claim 9, Dureau in view of Mao discloses all limitation of claim 1, and further discloses step of demultiplexing the first transport stream, transcoding the second payload, and multiplexing the first and transcoded payloads occurs in the system (Mao, Fig. 1, col. 6, lines 14-36, Dureau, para. 39).

Dureau in view of Mao does not explicitly discloses a card inserted into a card slot of first interface device,

Candelore I teaches discloses a card inserted into a card slot of first interface device (Fig. 2, el. 10, a cable card containing the function of transcoder is inserted in the STB receiver),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao a card inserted into a card slot of first interface device, in order to easily replace the cable card with another one if it goes bad.

Regarding claim 35, Dureau in view of Mao discloses all limitation of claim 32, and further discloses wherein the demultiplexor (Dureau, para. 39), the transcoder (Mao, Fig. 1, el. 20) and the multiplexor are on a first hardware module (Mao, Fig. 1, el. 14),

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Dureau in view of Mao and further in view of Candelore does not explicitly disclose first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol.

Candelore I teaches first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol (Fig. 2, el. 10, the cable card is to inserted to the receiver).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao to include first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol in order to easily to replace this module if it goes bad.

Regarding claim 36, Dureau in view of Mao and further in view of Candelore I all limitation of claim 33, and further discloses wherein the demultiplexor (Dureau, para. 39), the transcoder (Fig. 1, el. 20), and the multiplexor are on a first hardware module (Mao, Fig. 1, el. 14),

Dureau in view of Mao and further in view of Candelore does not explicitly disclose first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol.

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and the first copy protection encoder, the first copy protection decoder are on a first hardware module,

Candelore I teaches first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol (Fig. 2, el. 10, the cable card is to inserted to the receiver).

the first copy protection encoder (Candelore, Fig. 2, el. 28), the first copy protection decoder are on a first hardware module (Candelore, Fig. 2, el. 29),

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao to include first hardware module that is configured to be inserted into a receiver device that is configured to decode payloads formatted according to the second protocol in order to easily to replace this module if it goes bad.

Regarding claim 38, Dureau in view of Mao discloses all limitation of claim 29,

Dureau in view of Mao does not explicitly discloses transmitting the second transport stream to a device that is configured to receive transport streams containing payloads formatted according to the first protocol.

Candelore I discloses transmitting the second transport stream to a device that is configured to receive transport streams containing payloads formatted according to the first protocol (Fig. 2, the second transport stream is going from

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the cable card (el. 28) to the STB (el. 29), and the cable card has the transcoder (el. 70) to format to the MPEG 2 protocol).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao transmitting the second transport stream to a device that is configured to receive transport streams containing payloads formatted according to the first protocol, in order to format the program content into a format that is compatible to user's device.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore (US 2005/0175178 A1, hereinafter refers as Candelore I) and further in view of Iwamura (US 2003/0059047 A1).

Regarding claim 37, Dureau in view of Mao and further in view of Candelore I discloses all limitation of claim 36, and further discloses wherein the demultiplexor (Dureau, para. 39), the transcoder (Candelore I, Fig. 2, el. 70), and the multiplexor are on a first hardware module (Mao, Fig. 1, el. 14), the first copy protection encoder (Candelore, Fig. 2, el. 28), the first copy protection decoder are on a first hardware module (Candelore, Fig. 2, el. 29),

Dureau in view of Mao and further in view of Candelore does not explicitly disclose a first hardware module that is configured to communicate with a second hardware module that contains the second copy protection encoder, the second copy protection decoder, and the second demultiplexor.

Iwamura teaches a first hardware module that is configured to communicate with a second hardware module that contains the second copy protection encoder, the second copy protection decoder, and the second demultiplexor (Fig. 2, para. 17, para. 58-60, the set top box contains second encryptor, decryptor, and demultiplexor are communicated to Pod card (first module)).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore I to include teaches a first hardware module that is configured to communicate with a second hardware module that contains the second copy protection encoder, the second copy protection decoder, and the second demultiplexor, as taught by Iwamura, in order to properly decoded the copy protected content to the authorized users.

7. Claims 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore and further in view of Park (5,757,909).

Regarding claim 10, Dureau in view of Mao and further in view of Candelore discloses all limitation of claim 9, and further discloses decode the data stream prior to the demultiplexing, transcoding, and multiplexing (Mao, Fig. 1, col. 6, lines 14-36, Dureau, para. 39).

Dureau in view of Mao and further in view of Candelore does not explicitly disclose [decoding] copy protection of the first transport stream [in the card].

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Park teaches [decoding] copy protection of the first transport stream [in the card] (Fig. 6-9, col. 13, lines 1-67, col. 14, lines 21-67).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore to include [decoding] copy protection of the first transport stream [in the card], as taught by Park, in order to perform the illegal viewing and copy protection (col.14, lines 65-67).

8. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao and further in view of Candelore and further in view of Park (5,757,909) and further in view of Orr (US 6,567,127 B1).

Regarding claim 11, Dureau in view of Mao and further in view of Candelore and further in view of park discloses all limitations of claim 10.

Dureau in view of Mao and further in view of Candelore and further in view of park does not explicitly disclose encoding copy protection to the second transport stream.

Orr teaches encoding copy protection to the second transport stream (Fig. 1, col. 3, lines 30-63).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore and further in view of Park to include encoding copy protection to the second transport stream, as taught by Orr, in order to enhance the video data stream (col. 3, lines 50-52).

Regarding claim 12, Dureau in view of Mao and further in view of Candelore and further in view of park and further in view of Orr discloses transmitting the copy protection encoded second transport stream from the card to the first interface device (Dureau, Fig. 1-4, abstract, para. 33-36, Hendricks, Fig. 52b, col. 13, lines 16-43, col. 3, lines 30-col. 4, line 3, the encoded video stream is transferred to the set top box).

2. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dureau in view of Mao (US 6,886,178 B1) and further in view Candelore (US 2005/0175178 A1, hereinafter refer as Candelore I) and Kost and further in view of Orr (US 6,567,127 B1)

Regarding claim 31, Dureau in view of Mao and further in view of Candelore I and Kost discloses all limitation of claim 30,

Dureau in view of Mao and further in view of Candelore and Kost does not explicitly discloses

prior to demultiplexing and prior to decoding, encoding the first transport stream to be copy protected;

after multiplexing and after encoding the second transport stream, decoding the second transport stream no longer be copy protected; and

after decoding the second transport stream, demultiplexing the second transport stream to recover the first and transcoded second payloads.

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Candelore I teaches prior to demultiplexing (el. 30) and prior to decoding (el. 34), encoding the first transport stream to be copy protected (Fig. 1, el. 28);

after decoding the second transport stream (el. 29), demultiplexing (el. 30) the second transport stream to recover the first and transcoded second payloads (first payload goes to el. 34, and second payload goes to el. 31).

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore I and further in view of Kost to include prior to demultiplexing and prior to decoding, encoding the first transport stream to be copy protected and after decoding the second transport stream, demultiplexing the second transport stream to recover the first and transcoded second payloads; as taught by Candelore I, in order to copy protected the program file so only authorized user can access.

Dureau in view of Mao and further in view of Candelore I and further in view of Kost does not explicitly disclose after multiplexing and after encoding the second transport stream, decoding the second transport stream no longer be copy protected; and

Orr teaches after multiplexing (Fig. 1, el. 50) and after encoding the second transport stream (el. 40, copy protection encoding), decoding the second transport stream no longer be copy protected (el. 116, copy protection decoder);

It would be obvious to one of ordinary in the art at the time of invention to modify Dureau in view of Mao and further in view of Candelore I and further in view of Kost to include after multiplexing and after encoding the second transport stream, decoding the second transport stream no longer be copy protected; as

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taught by Orr, in order to remove the copy protected program content from authorized user so he or she can watch the content.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAI CHEN whose telephone number is (571)270-5679. The examiner can normally be reached on 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on 571-272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CAI CHEN/
Examiner, Art Unit 2425

/Brian T. Pendleton/
Supervisory Patent Examiner, Art Unit 2425